



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

May 22, 1984

Docket No.: 50-461

APPLICANT: Illinois Power Company
FACILITY: Clinton Power Station, Unit 1
SUBJECT: MEETING SUMMARY - POOL DYNAMICS

On April 18, 1984, a meeting was held at the NRC Offices in Bethesda, Maryland, to discuss the subject of pool dynamics. Attachment 1 is a list of meeting attendees. The purpose of the meeting was to give the NRC staff an overview of the applicant's technical approach and status of concerns relative to pool dynamics. The agenda followed during the meeting included:

- a history of the pool dynamics issue
- load definitions
- in-plant SRV testing positions
- conformance evaluations to NUREGs 0763, 0783, 0802, and 0978
- critical path considerations
- modifications implemented
- Humphrey issues

IP presented Clinton's conformance with the staff's guidelines regarding hydrodynamic load definitions and the modifications made to resolve the Humphrey encroachment issue. The detailed justification for the encroachment modifications will be provided in the near future.

With regard to the SRV-related hydrodynamic issues, Dr. Eltawila (CSB) stated that the CSB related concerns on Clinton's conformance with NUREGs-0763, 0783, and 0802 have been satisfactorily resolved. Dr. Eltawila did suggest that the response to CBS question 480.28 be modified to include the specific equipment that would be used for alternative shutdown cooling capability in the event of suction line isolation failure.

Mr. Fields (CSB) stated that Clinton's conformance with the staff's acceptance criteria for LOCA related hydrodynamic load definitions appeared to be acceptable for the most part. Mr. Fields requested IP to respond to the following questions/comments:

- 1) Evaluate the Clinton Facility using the latest acceptance criteria contained in draft NUREG-0978 currently out for public comment, rather than the 1982 decision.
- 2) State what revision of GESSAR-II Appendix 3B is being referenced for Clinton and how changes to the GESSAR document are incorporated into design verification of Clinton.

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- 3) Provide the details behind the 4.6 psid forth drag load calculation and the reason for applying the calculation from GESSAR for this local phenomena.
- 4) Review and update sections A3.8 and A3.9 of the FSAR.

With regard to the modifications made to resolve the Humphrey encroachment issue (which was basically the addition of a three foot ledge to the top of personnel and equipment hatches), Mr. Fields indicated that this approach has a couple of potential problems:

- 1) The addition of the three foot ledges were based on SOLA calculations of the resulting pool swell shapes. Recent experiments at the GE test facility developed to verify the SOLA code indicates that SOLA would not be useful for predicting pool swell shapes.
- 2) Solid water impact load definitions for structures wider than 20 inches have not yet been developed by the industry. IP will have to develop appropriate load definitions for the three foot ledges and provide them to the staff for our review.

A brief general question and answer period followed and the meeting was terminated at 12:30 p.m.

Gregory A. Harrison, PM
Licensing Branch No. 2
Division of Licensing, NRR

cc: See Attached

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NRC Participants

Gregory Harrison, PM
Mel Fields, CSB
Farouk Eltawila, CSB

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Clinton Power Station, Unit 1
April 18, 1984 Meeting
Attendance List

NAME

Organization

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W. R. Peebles
J. L. Peterson
Gary A. Weber
Brian L. Renwick
Erich Kant
Mel Fields
Farouk Eltawila

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